

**510(k) Summary  
for the  
E.M.S. ELECTRO MEDICAL SYSTEMS SA  
EMS Piezon Master Surgery**

K072146

**1. SPONSOR**

E.M.S. ELECTRO MEDICAL SYSTEMS SA  
Ch. de la Vuarpillière 31  
CH - 1260 Nyon  
Switzerland

Contact Person: Suzanne Fassio-Hardy  
Telephone: 022 994 47 00

DEC 18 2007

Date Prepared: August 2, 2007

**2. DEVICE NAME**

Proprietary Name: EMS Piezon Master Surgery  
Common/Usual Name: Bone-cutting instrument and accessories  
Classification Name: Drill, Bone, Powered

**3. PREDICATE DEVICES**

- Piezosurgery s.r.l. Piezosurgery® (K043408)
- SATELEC Piezotome™ (K060274)

**4. INTENDED USE**

The EMS Piezon Master Surgery is an ultrasonic bone-cutting instrument for use in surgical dentistry.

**5. DEVICE DESCRIPTION**

The EMS Piezon Master Surgery is an ultrasonic bone-cutting instrument designed for use in surgical dentistry. The device generates piezo-electric vibrations (ultrasonic energy) for cutting and non-cutting instruments used in surgical dentistry, including oral surgery, implantology, periodontal surgery, and maxillary surgery.

The EMS Piezon Master Surgery device consists of a main chassis containing an irrigation delivery system, an internal electric power supply, a control panel with light-emitting diode (LED) displays, and ultrasonic generator. A one-step footswitch is connected to the main chassis by a footswitch cord and a handpiece containing cutting and non-cutting instruments is connected directly to the main chassis.

#### 6. TECHNOLOGICAL CHARACTERISTICS AND SUBSTANTIAL EQUIVALENCE

The EMS Piezon Master Surgery and the predicate devices Piezosurgery s.r.l. Piezosurgery® and SATELEC Piezotome™ generate piezo-electric vibrations (ultrasonic energy) for cutting and non-cutting instruments and are indicated for use in surgical dentistry. Differences between the proposed EMS Piezon Master Surgery and the predicate ultrasonic bone-cutting instruments are limited to design differences in the control panel, irrigation delivery system, and accessories available with each device. Performance testing has been conducted that confirms that the Piezon Master Surgery is able to perform ultrasonic bone-cutting for use in surgical dentistry.

The similarities in intended use, technical specifications, and functional performance between the EMS Piezon Master Surgery, Piezosurgery® and Piezotome™ leads to a conclusion of substantial equivalence between the proposed and predicate devices.



DEC 18 2007

Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

E.M.S. Electro Medical Systems S.A.  
C/O Ms. Susan M. Bonapace  
Regulatory Associate  
Medical Device Consultant, Incorporated  
49 Plain Street  
North Attleboro, Massachusetts 02760

Re: K072146  
Trade/Device Name: EMS Piezon Master Surgery  
Regulation Number: 872.4120  
Regulation Name: Bone Cutting Instrument and Accessories  
Regulatory Class: II  
Product Code: DZI  
Dated: December 13, 2007  
Received: December 14, 2007

Dear Ms. Bonapace:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (240) 276-0115. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/industry/support/index.html>.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Chiu Lin', with a stylized flourish at the end.

Chiu Lin, Ph.D.

Director

Division of Anesthesiology, General Hospital,

Infection Control and Dental Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

## Indications for Use

510(k) Number (if known):

Device Name:

EMS Piezon Master Surgery

Indications for Use:

The EMS Piezon Master Surgery is an ultrasonic bone-cutting instrument for use in surgical dentistry.


Prescription Use  X   
(Part 21 CFR 801 Subpart D)

AND/OR

Over-The-Counter Use \_\_\_\_\_  
(21 CFR 807 Subpart C)

(PLEASE DO NOT WRITE BELOW THIS LINE-CONTINUE ON ANOTHER PAGE IF NEEDED)

Concurrence of CDRH, Office of Device Evaluation (ODE)

  
(Division of [illegible])  
Division of [illegible] General Hospital  
Infection Control [illegible]

510(k) Number K072146

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EMS Piezon Master Surgery

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